U.S. Department of Agriculture
Natural Resources Conservation Service

Wildlifeland Resource Management System 1/ Coastal Marsh

Section III Technical Guide

Wildlifeland - Coastal Marsh 1

Louisiana Field Office

Existing Conditions: Until the mid - 1950's, this 5,000 acre wetland consisted of fresh marsh vegetation dominated by maidencane and Jamaican sawgrass. Ship channels and oil exploration canals have provided an avenue for saltwater intrusion into this marsh. At the present time, the northern half of the area is fresh marsh, but the southern half has been converted to intermediate/brackish marsh and open water. Open water areas support sparse beds of widgeon grass. If the marsh continues to deteriorate at the present rate, the entire area will revert to open water in 50 years. Soils in this marsh consist of Allemands freshwater peat (Fc), Larose clays and mucks (Fa), swamp clays and mucks (Sg), and Lafitte deep peat (Fd). All are fragile and very susceptible to erosion. Saline water is causing the vegetation to die and tidal fluctuations are causing the soils to erode. Waterfowl, furbearer, alligator, and fisheries habitat is deteriorating. Wave action in the ship channel and oil exploration canals is causing excessive shoreline erosion.

Landowners Objectives: Stop the conversion of emergent marsh to open water; convert some of the open water back to emergent marsh; increase the growth of aquatic vegetation in deep open water areas; enhance the quality of wildlife and fisheries habitat; and protect shoreline from excessive erosion.

Express the effects of the selected practices as N/A, if not applicable; F = facilitating; $\theta = no$ effect; $\theta = no$ effect; and $\theta = no$ effect; and $\theta = no$ effect.

	Soil					Water				Air	P	Animals					
Problems	Eros	ion	Cond	ition	Deposition	•	Quantit	y	Quality	Quality	Condition	Management	I	Habita	t	Manag	gement
RMS Options	Marsh	Road Banks, Dikes	Soil Salinity	Soil Composition	Sediment - Onsite	Excess or Deficit	Tidal Flux	Circulation - In and Out	Salinity, Sediment Turbidity	Smoke	Health, Abundance, Vigor	Establishment and Growth	Food	Cover	Water	Population Balance	Animal Health
Quality Criteria Met	√	V	V	V	\checkmark	√	V	√	√	√	V	V	√	V	V	V	√

Option I: Install structural measures (weirs, dikes, level ditches) to stabilize tidal fluctuations, regulate water levels, reduce salinities, decrease turbidity, and improve fre water circulation in the area. Special consideration will be given to the ingress and egress of marine organisms when designing and operating water control structu

Wildlife Wetland Habitat																	
Management	+	0	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+
Wetland Restoration	+	0	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+
Wetland Enhancement	+	0	+	+	+	+	+	+	+	0	+	+	+	+	+	+	+
Dike	+	0	+	0	+	+	+	+	+	0	+	+	+	+	+	0	0
Structure for Water Control	+	0	+	0	+	+	+	+	+	0	+	+	+	+	+	0	0
Prescribed Burning ^{2/}	+	0	0	0	0	0	0	0	0	-	+	+	+	+	0	+	+
Critical Area Planting	0	+	0	0	0	0	0	0	0	0	+	+	+	+	0	0	+
Steambank and Shoreline																	
Protection	+	+	0	0	0	0	0	0	0	0	+	+	+	+	0	0	+

^{1/} NRCS flood plain management guidelines, wetland policy, Farm Bill regulations, federal and state wetland permit requirements and state water quality guidelines must considered when planning on RMS.

^{2/} Prescribed burning will be done according to state air quality laws.

Natural Resources Conservation Service

Wildlifeland Resource Management System ^{1/} Openland

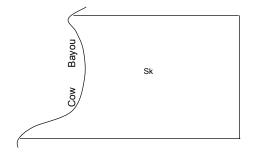
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Section III

Louisiana

Field Office

Existing Conditions: This 300 - acre field has been in crop production since 1975. Soybeans and/or grain sorghum are planted annually. Yields have steadily decreased since 1980. Lower yields and poor market conditions have resulted in a low profit margin. The field is located adjacent to Cow Bayou. Three drainage channels drain water from the field into the bayou. Gullys have eroded at the drainage outlets and are backing into the field. Significant amounts of sediment are washing into the bayou. Back water flooding from the bayou occasionally delays planting and prevents harvesting of crops. The soil is Sharkey clay occasionally flooded (Sk).



Landowner's Objectives: Convert field from crop production to moist soil management units for waterfowl. Lease land for waterfowl hunting. Stop gully erosion.

Express the effects of the selected practices as N/A, if not applicable; F = facilitating; 0 = no effect; + = positive effect; and - = negative effect.

Resource	Soil Wa			Water Air			nts	Animals						
Problems	Ero	sion	Quantity	Quality	Quality	Manag	ement		Habit	at	Managemen			
RMS Options	Gully	Dikes	Deficit or Excess	Sediment - Offsite	Dust	Species	Vigor	Food	Clover	Water	Hunting Pressure			
Quality Criteria Met	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	√			
Wetland Wildlife Habitat Management	0	0	+	+	N/A	+	+	+	+	+	+			
Wetland Enhancement	0	0	+	+	N/A	+	+	+	+	+	+			
Dike	0	0	+	0	N/A	0	0	0	0	+	0			
Structure for Water Control	+	0	+	+	N/A	0	0	0	0	+	0			
Shallow Water Management for Wildlife	0	0	+	+	N/A	+	+	+	+	+	0			
Pumping Plant for Water								0	0					
Control	0	0	+	0	N/A	0	0	0	0	+	0			
	0	0 +	+ 0	0 +	N/A N/A	0	0	0	0	0	0			

1/ NRCS floodplain management guidelines, NRCS wetland policy, Farm Bill regulations, federal and state wetland permit requirements, and state water quality guidelines must be considered when planning an RMS.

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Natural Resources Conservatio Service

Wildlife Resource Management System 1/2 Forestland

Technical Guide

Section III

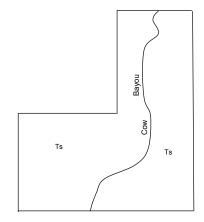
Wildlife/Forestland - 1

Field Office

Louisiana

Existing Conditions: This 1,200 acre tract is a mature stand of mixed hardwoods. Dominant trees are red oaks, green ash, sweetgum, sugarberry, American elm, and box elder. Dense overstory canopy and excessive browsing by deer has restricted the growth of understory vegetation. Oak regeneration is suppressed because of excessive shade in the understory and from deer browsing activities. Cow Bayou, an intermittent stream holding ponded water, flows through these woods. The number of deer on this tract has exceeded the habitat's carrying capacity. The population is estimated at one deer/3 acres. Body weights average less than 100 lbs. for 1.5 year old deer. It is estimated that there is one buck for every ten does. Antler development is also poor. Quality of recreational hunting has decreased. Deer are consuming excessive amounts of soybeans on adjacent cropland.

Landowner's Objectives: Increase the quality of the deer herd, reduce consumption of crops on adjacent land, and put more emphasis on economic returns from timber production and commercial hunting.



Express the effects of the selected practices as N/A, if not applicable; F = facilitating; 0 = no effect; + = positive effect; and - = negative effect.

Resource	Sc	oil	Water Air		Pla	Plants			Animals	
Problems	Ero	sion	Quality	Quality	Manag	gement		Habitat		Management
RMS Options	Streambank	Logging Roads	Sediment	Smoke	Timber	Consumption of Crops	Food	Cover	Water	Population Control
Quality Criteria Met	√	√	√	√	√	√	V	√	√	V
Option I: Group clearcut of Access roadswill be installed Upland Wildlife Habitat	_	_		_		deer harvest	t program v	will achieve	manageme +	nt objectives.
Management	+		+					+		
Access Roads	-	0	-	N/A	0	0	0	0	0	0
Forest Stand Improvement	-	-	-	N/A	+	+	+	+	+	+

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Natural Resources Conservation Service

Wildlifeland Resource Management System 1/

Section III
Technical Guide

Louisiana Field Office

Forestland

Wildlife/Forestland - 1

Existing Conditions: This 400 - acre tract is composed of a 20 - year old stand of loblolly pine. A full overstory canopy is suppressing understory vegetation. Tree growth has slowed because the stand is overstocked. The carrying capacity of this tract is very low due to a lack of browse, cover, and water. Very few deer are utilizing this habitat. The property is composed of Guyton, Ruston, and Malbis soils.

Landowner's Objectives: Forest Stand Improvement and increase habitat quality for deer and other wildlife. Attract and sustain a larger deer herd for recreational hunting.

Express the effects of the selected practices as N/A, if not applicable; F = facilitating; 0 = no effect; + = positive effect; and - = negative effect.

Resource	Soil	Water	·	A	ir			Plants				Animals						
Problems	Erosion	Quality	Quality	(Conditio	n	Conditio	n	Management		Habitat		Managen	ient				
RMS Options	Gully, Ephemeral, and Sheet	Sediment - Offsite	Safety	Air Temperature	Air Movement	Air Humidity	Productivity	Health & Vigor	Growth/ Harvest	Food	Cover	Water	Population/ Resource Balance	Animal Health				
Quality Criteria Met	V	√	√	\checkmark	V	V	V	√	√	√	√	√	V	V				
Option I: The existing tree s The area will be prescribe bu				continue	to be per	riodically	thinned. Wildl	ife food	plots will be pla	nted an	d wildlife	waterin	g facilities instal	led.				
Prescribed Burning 2/	0	0	-	0	0	0	+	+	+	+	+	0	+	+				
Firebreak	0	0	+	N/A	N/A	N/A	+	+	0	+	+	0	+	+				
Upland Wildlife Habitat																		
Management	0	0	0	N/A	N/A	N/A	+	+	+	+	+	0	+	+				
Wildlife Watering Facility	0	0	0	N/A	N/A	N/A	0	0	0	0	0	+	+	+				
Forest Stand Improvement	-	-	-	N/A	N/A	N/A	+	+	+	+	+	+	+	+				

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^{2/} Prescribed burning will be done according to state air quality laws.